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A PART OF A DISSERTATION SUBMITTED TO THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF SOCIOLOGY

1938

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OLIVER CROMWELL COX

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# SEX RATIO AND MARITAL STATUS AMONG NEGROES*

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DIFFERENCES in the marital status of persons in different areas and communities may be due to differences in the ratio of marriageable men to women. Although in simple societies such institutions as polygyny and polyandry may have their roots in tribal sex disequilibrium,[1] the effect of the latter condition is hardly observed in our more complex organization. William F. Ogburn has shown, however, that in cities where the sexes are unequal in number, a sort of competition develops which is similar to that of the "open market." The proportion of either sex married in the community will depend upon the availability of marriageable members of the other sex; but the excess of one sex over the other affects differently the proportion of males and females who will be married. "Men are less dependent on the supply of women in marrying than women are on the supply of men."[2] But this conclusion has significant racial and urban-rural modifications. We shall consider here some of the racial differences. The racial sex ratio varies considerably in the different regional divisions of the United States. In the Mountain division, among Negroes, there are 123 men to 100 women (1930); while in the South Atlantic, there are approximately 93 men to 100 women. Such differences in sex ratios are similarly significant among urban and rural areas. Although a comparison of the sex ratio and marriage in the divisions may suggest the nature of the dependence of marriage upon the availability of the sexes, the size of these units is so great as to reduce considerably the precision of deductions. Ordinarily, men and women meet each other not in divisions or even in states, but in cities or rural counties.[3]

In cities, as the number of males to 100 females increases, the percentage of all persons 15 years of age and over who are married also increases; but the advance in marriage is greater for Negroes than for native white of native parentage persons. In the case of Negroes, the straight line of average relationship (for sex ratios 60 to 134 and for 220 cities) has a slope of

* The writer is indebted to W. F. Ogburn and Samuel A. Stouffer for valuable advice and criticism.

[1] Robert H. Lowie, *Primitive Society*, 40, New York, 1920; Edward Westermarck, *The History of Human Marriage*, 5th ed., 1: 337; Margaret Mead, *Growing Up in New Guinea*, chaps. 10–12, New York, 1930.

[2] E. R. Groves and W. F. Ogburn, *American Marriage and Family Relationships*, 197–99, New York, 1928.

[3] Probably, as in the case of larger cities, even these operating units of the wider geographical area become sectionalized for the social activities of the individual. See James H. S. Bossard, "Residential Propinquity as a Factor in Marriage Selection," *Amer. J. Sociol.*, 38: 219.

+0.211; while for native whites, the slope is +0.097 (sex ratios 80 to 109). Thus, the change in percentage of Negroes married for given changes in the sex ratio is at least twice as great as that for native whites. These relationships are shown in Chart 1, and in Chart 2, with extreme sex ratios included.

The percentage of Negro females married in cities is particularly sensitive to changes in the sex ratio, while the percentage of males married seems to respond almost not at all. An increase of 10 in the sex ratio increases female marriage on the average by four percent and decreases the marriage of males by only 0.3 percent. Thus, the percentage of urban Negro females married varies about 13 times as much, for a given change in the sex ratio, as the percentage of males married. Chart 3 illustrates the relationship. A similar conclusion was reached by Ogburn. He found that for 100 cities with sex ratios from 83 to 119 "the slope was about four times as great for females (+0.52) as for males (−0.13)."[4] The latter limits of the sex ratio, however, excludes much of the urban South where the marriage of females seems to be peculiarly sensitive to changes in the sex ratio. The sample which Ogburn used, then, will tend to narrow the difference in slopes for the sexes. The curvature of data here is insignificant.[5]

In the case of native whites of native parentage, for 212 of the same cities, female marriage increases 2.8 percent and male marriage decreases 1.6 percent for every 10 percent increase in the sex ratio. The influence of the sex ratio is somewhat less than twice as great upon the marriage of females as upon that of males.[6] This percentage of native white males married depends more upon the sex ratio than Negro males, and Negro females more upon the sex ratio than white females.

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[4] Groves and Ogburn, *op. cit.*, 197.

[5] Almost every conclusion reached in this study has been based upon data reported by the Federal census; hence its precision will vary directly with the accuracy of these reports. It has been shown by various writers that the 1920 census, especially, underenumerates Negroes and whites and that the error is greater for Negroes.

But the effect of an error in enumeration depends upon the problem in hand. If the undercount for all communities is systematic and uniform it will tend to lower averages and to lessen the slope of simple regression lines; but coefficients of correlation will not be affected. If the error varies from community to community, correlations will be lowered; but averages may not be affected. Finally, there may be a combination of systematic and variable errors, the effect of which will depend upon the positive or negative character of the systematic error, and the size of the variable errors of enumeration. A careful study of the reliability of the data does not seem to justify any significant modifications of the conclusions reached in this paper.

[6] The equations are:

For males, $Y=77.26321-0.15995\ X$ and
$Y=75.02473-0.11528-0.00022X^2$
For females, $Y=32.17384+0.28274\ X$ and
$Y=-17.66791+1.27839\ X-0.00491X^2$

Where $Y=$ the percentage married and $X=$ the sex ratio. If only the 199 cities with sex ratios from 80 to 109 are included, the difference between the slopes for native white males and females is reduced. They are for females +0.27 and for males −0.19.

CHART. 1. THE SEX RATIO AMONG NEGROES AND PERCENTAGE MARRIED FOR 200 CITIES, 1930

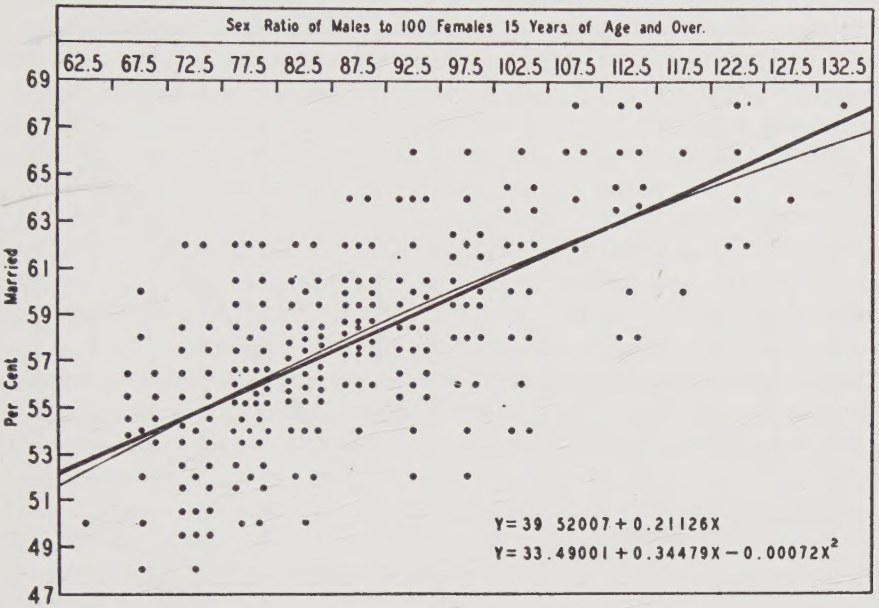



CHART 2. THE SEX RATIO AMONG NATIVE WHITES OF NATIVE PARENTAGE AND PERCENTAGE MARRIED FOR 212 CITIES, 1930

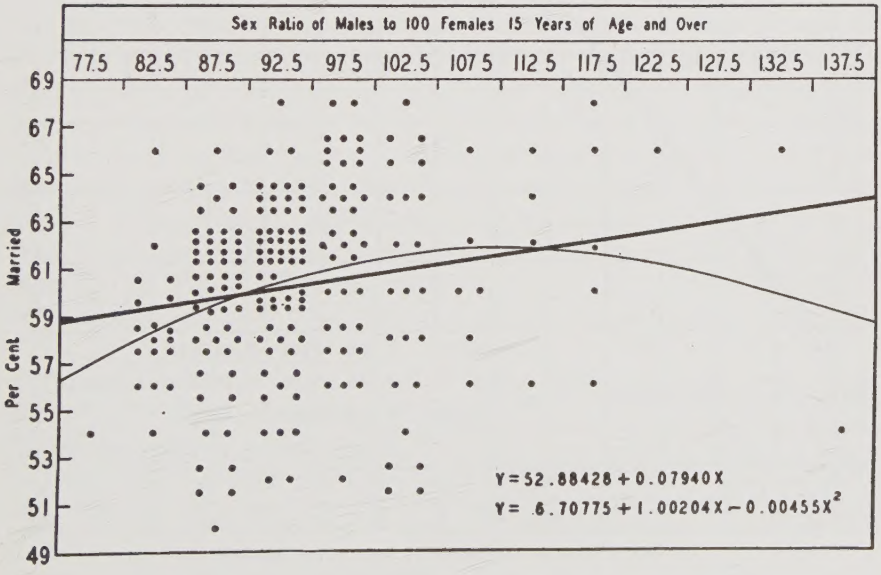
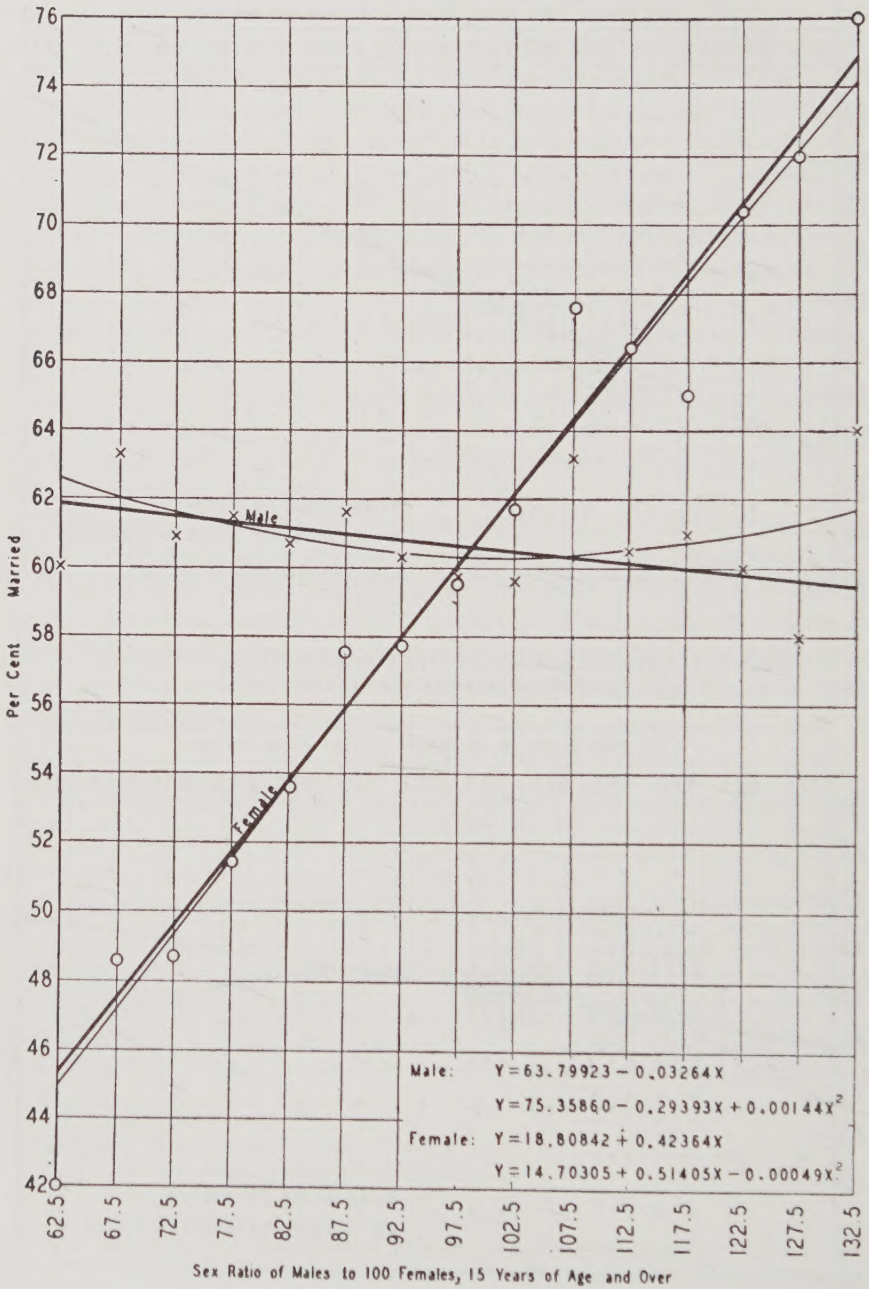


CHART 3. SEX RATIO AND PERCENTAGE OF MALE AND FEMALE NEGROES MARRIED FOR 220 CITIES, 1930



It has been accepted that the economic factor in marriage is an important urge. Ogburn has suggested that "the fact that men are largely the economic support of married women" may be the determining element in the greater sensitivity of the marriage of women to variations in the sex ratio. A scintilla of evidence was educed to show that inasmuch as Negro women work for money wages more frequently than white women, the effect of the sex ratio upon the marriage of male and female Negroes was more nearly alike.[7] Although the author does not put confidence in his results, the relationships obtained here are opposed to such assumptions. It is probable that Negro women do not depend upon their economic power so much in bargaining for marriage as in using their ability to work from necessity after they are married.[8]

One may venture the following speculations. In urban communities, marriage involves an economic burden especially upon men. We may assume, then, that for a given standard of living, more men will marry as more of them become economically sufficient. Within limits of the sex ratio, the condition of the "pocketbook"[9] may be a determining factor in male marriage. As the sex ratio increases, this economic factor may remain constant, the result of which will be a larger number of men economically able to marry but a relatively smaller number of women available. The assumption here is that women take a comparatively passive role in contracting for marriage. On the other hand, if the sex ratio decreases, within limits, while the economic ability of men to marry remains constant, the percentage of males married will be the same as when the sex ratio was high, but the percentage of females married will be smaller. We may put the concept in its simplest form thus: if, when the sex ratio is either 110 or 100, 50 percent of the male population are economically able to marry, there would be obviously different percentages of the female population married for this constant male percentage.

Apart from the fact that in cities the percentage of men married is less dependent upon the sex ratio than the percentage of women married, there remains the question of the difference between native whites and Negroes. Why do changes in the sex ratio influence the marriage of white males more than that of Negro males, and white females less than Negro females? A very evident answer to these questions seems to have its basis in the em-

[7] Groves and Ogburn, *op. cit.*, 199–201.

[8] At every age there is a larger percentage of Negro women than native white women employed in the United States. High employment of women, then, is a characteristic of Negroes. Negro women are employed mainly as domestic servants, an occupation that is commonly considered undignified. Thus, employment before marriage may be a disadvantage to the Negro girl. This is partly indicated by the fact that *single* young white women are more highly employed than single young Negro women. In 1930, for the age group 20 to 24, 67.1 percent of the single Negro women and 70.1 percent of the single native white women were employed in the United States.

[9] W. F. Ogburn, *Amer. J. Sociol.*, 41: 297.

ployment conditions of women. It may be shown that, in cities, as the percentage of white women married increases, they become less employed; but as the percentage of Negro women married increases, they become more employed. Thus employment of white women seems to make them rather more independent of marriage than does employment of Negro women.

Generally speaking, the employment of Negro women compared with that of white women is insecure, poorly remunerated, and undignified. White women, on the other hand, may frequently find employment that is not only interesting but also highly profitable. As the sex ratio increases, then, we should expect white men to find it more difficult to marry than Negro men. They may have greater problems in meeting the standards of the marriageable employed white women. In the case of Negroes, employed marriageable women, as a group, may be least desirable to Negro men.[10] Thus we should expect the marriage of Negro women to depend more on the sex ratio than that of white women. For though they are more highly employed, comparatively few of them are economically independent. Moreover, it is conceivable that Negro girls may be less concerned than white girls are about the economic abilities of suitors who want to marry. The probability of working as a domestic after marriage is not an insignificant matter, but it might be more preferable to do so after marriage than before.

*Differences Between the South and the North.* A comparison of the influence of the sex ratio upon the marriage of Negroes in the South and the North defines the concept still further. In the South, for 145 cities, total marriage increases on the average two percent, and in the North for 77 cities, one percent for every ten percent increase in the sex ratio.[11] Is this sectional difference in the operation of the sex ratio characteristic? In the South, the range of the sex ratios for these cities is from 60 to 100; in the North it varies between 65 and 130; and, consequently, the average percentage married is higher in the North than in the South, though, of course, other factors than the sex ratio may be involved. An analysis by sex shows that the slopes are, for females, +0.3 and +0.4 and, for males, −0.1 and −0.07, the North and South respectively. The sex ratio seems to be more determinative of the marriage of women in the South and that of men in the North.[12]

[10] Could it be that the type of employment generally open to Negro women makes them "age quicker than white women"? If physical attractiveness is a significant factor in men's choice of women in marriage, how much of this will a Negro woman have to offer after working for ten years, say from the age of 20 to 30 years, in a laundry? Comparatively few urban Negro women marry after 30 years of age.

[11] The equations are:

The South, $Y = 38.24777 + 0.22294X$

The North, $Y = 47.72287 + 0.13594X$

Where $Y$ = percentage married and $X$ = sex ratio.

[12] The relationships are:

The South: Males, $Y = 66.9751 - 0.07648\ X$

Females, $Y = 17.0976 + 0.4415\ X$

The North: Males, $Y = 72.99067 - 0.11882\ X$

Females, $Y = 29.62588 + 0.3202\ X$

The prevailing low sex ratios in the South suggest the probability that in regions where the number of marriageable women is relatively large, as in the South, changes in the sex ratio may influence the marriage of men less than where women are generally scarce; and, conversely, where men are scarce changes in the sex ratio may affect the marriage of women more than where, as in the North, the ratio of marriageable men to women is high. The results obtained from dividing the 77 cities in the North into two parts, those with sex ratios above 100 and those with ratios below 100, support this hypothesis slightly, but the number of cities in each category is so small that definite conclusions cannot now be reached.

TABLE 1. MEAN SEX RATIO AND MEAN PERCENTAGE MARRIED FOR NEGROES AND NATIVE WHITES OF NATIVE PARENTAGE IN CITIES[1]

| Area and Race | Sex Ratio | Percentage Married | | |
|---|---|---|---|---|
| | | Males | Females | Total |
| Negro | | | | |
| The South | 80.8 | 60.8 | 52.7 | 56.3 |
| The North | 101.0 | 60.9 | 62.1 | 61.4 |
| The North | | | | |
| Low Sex Ratios | 93.3 | 61.3 | 59.1 | — |
| High Sex Ratios | 116.0 | 60.1 | 67.7 | — |
| Native White of Native Parentage | 94.3 | 62.2 | 58.8 | 60.4 |

[1] The number of cities are: for Negroes, the South 145; the North 77; low sex ratios in the North, 51; high sex ratios, 26; for native whites of native parentage, 212.

The stability of urban male marriage for relatively wide variations in the sex ratio and the definite positive response of female marriage may be further observed from a comparison of the means of the sex ratios and percentages married. Table 1 shows that an average of approximately 60 percent of the male Negro population are married for an average change in the sex ratio from 80 to 116. The difference of percentages married for the low and high sex ratios in the North indicate the moderate negative slope of the data. In nearly every case, however, increases in the mean sex ratios concur with increases in female marriage. Exceptions are the figures for native whites and the low sex ratios for Negroes, but the fact that an average of only 58.8 percent of native white women are married when the sex ratio is 94, and 59.1 percent of Negro women are married when the sex ratio is 93 is consistent with the observation made above that the marriage of Negro women is more sensitive to increases in the sex ratio than that of white women; the converse being true for Negro and white males.

*The Influence of Excess Married Men.* Frequently among migrating groups, husband and wife do not change residence together. Sometimes the economic pull is directed toward men as in the case of Gary, Indiana, where there are approximately 103 married men to 100 married women. Some-

times it is a call for women as in the case of Miami, Florida, where there are 90 married men to 100 married women. These inequalities of the sexes in different communities may have a significant effect upon both the sex ratio and percentage married. As we should expect, where the sex ratio is high, the ratio of married men to married women is also high. The correlation of the sex ratio and the marriage ratio for Negroes in the urban North is +0.71 (77 cities), and for the South, it is +0.49 (145 cities). In other words, married men tend to migrate to places where all men, regardless of marital status, migrate; and the same is true for women.

One way of eliminating the probable effect of excess husbands upon the relationship of the sex ratio and marriage is to give each community the same excess of married men. This may be done by deriving partial correlations.

TABLE 2. SIMPLE AND PARTIAL CORRELATION FOR THE SEX RATIO AND PERCENTAGE OF NEGROES, 15 YEARS OF AGE AND OVER, MARRIED ($r_{ms}$), WITH THE RATIO OF MARRIED MEN TO MARRIED WOMEN ($o$) CONSTANT

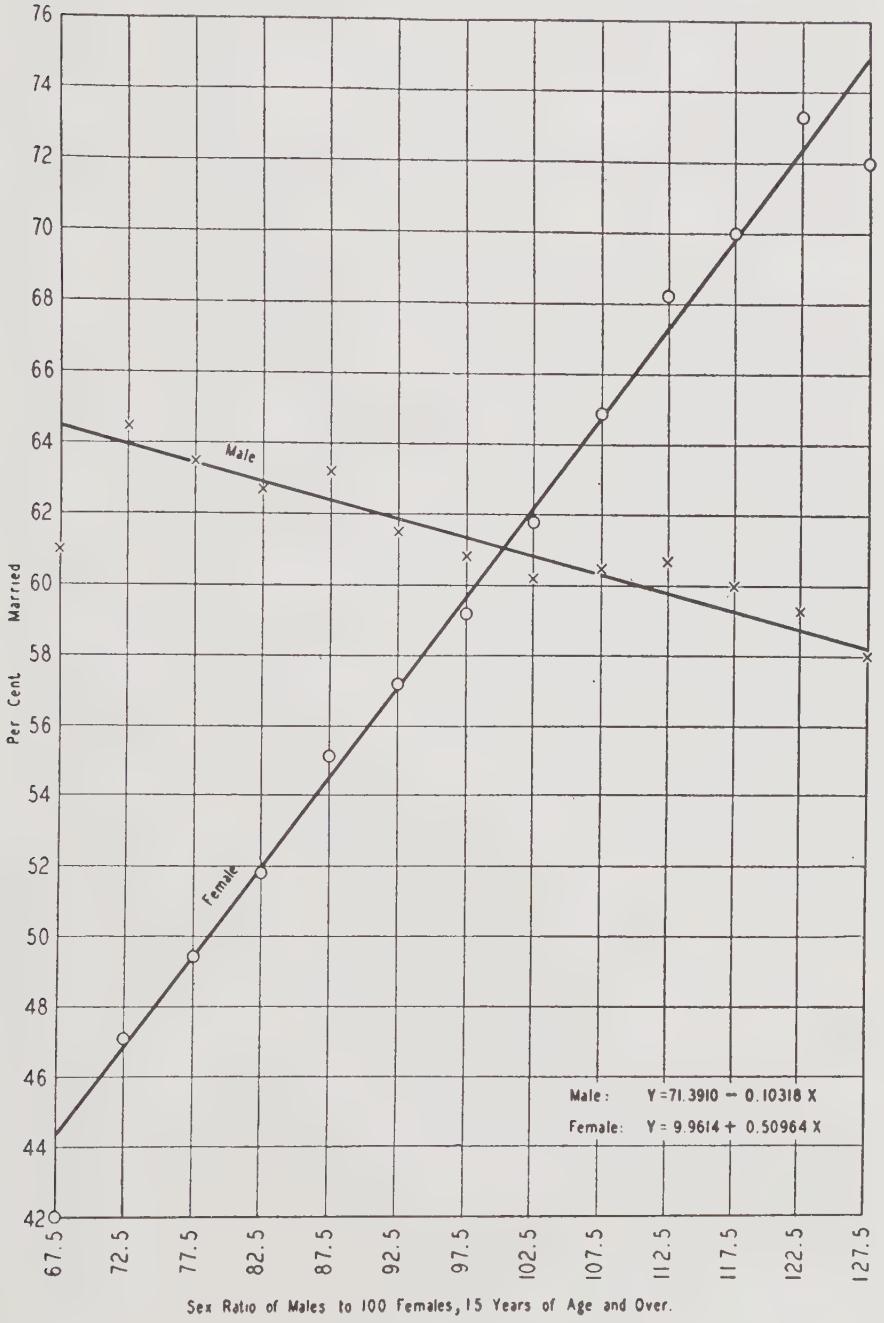
| Coefficients | Northern Cities | | | Southern Cities | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| $r_{ms}$ | −0.45 | +0.78 | +0.50 | −0.21 | +0.75 | +0.52 |
| $r_{ms.o}$ | −0.30 | +0.61 | +0.41 | −0.10 | +0.86 | +0.67 |
| Adjusted Data ($r_{ms'}$) | −0.50 | +0.85 | +0.48 | −0.22 | +0.82 | +0.54 |

Another approach to the problem is to assume that monogamous marriage is the rule in the United States, and of course, that each married woman has a husband. By simply making the number of married men equal to the number of married women in every community, we may eliminate to some extent the effects of migration. In Gary, Indiana, for example, there are 4355 Negro married women and 4470 married men. If we assume that 115 men have wives in other parts of the country, we may reduce both the number of married men and the total male population fifteen years of age and over in Gary by 115. The new sex ratio and percentage married may present a relationship with the influence of migration minimized.[13]

Table 2 shows the partial correlations and the simple correlations of the adjusted data. The effect of giving cities and rural counties the same ratio

[13] The method here has been to equalize in each community married men and women with married women as the norm. In 1930, there were enumerated for the United States, 98.3 Negro married men to 100 married women. The deficiency of married men may be due to married men reporting themselves single, husbands living outside the United States, underenumeration of married men, or women in other marital groups reporting themselves married. The effect of equalizing husbands and wives, if the error is in unmarried women reporting themselves married, is to increase the sex ratio on the average less than 1.7 percent.

CHART 4. THE SEX RATIO, WITH EXCESS MARRIED MEN ELIMINATED, AND PERCENTAGE OF MALE AND FEMALE NEGROES MARRIED FOR 216 CITIES, 1930



of married men to married women is to reduce the correlation between the sex ratio and percentage married for both sexes and the total in the North, and to increase that for females and the total in the South. The simple correlations of the adjusted data for males and females in the North represent an increase over the original coefficients; but there is little change for the sexes in the South. Both the partials and the adjusted coefficients emphasize the disparity of the influence of the sex ratio upon the marriage of the sexes in the South; but they do not make a significant change of the relationship in the North.

Using the adjusted data, Chart 4 shows the relationship for male and female Negroes in 216 cities of the North and South. The slopes for both males and females are increased, but that for males relatively more. They are, for males, −0.033 and −0.103, actual and adjusted respectively, while for females the actual is advanced from +0.42 to +0.51. Thus, a given increase in the effective sex ratio produces a variation approximately five times greater for females than for males. This is smaller than the difference observed for the actual data.[14]

TABLE 3. SLOPE OF THE CURVE OF AVERAGE RELATIONSHIP BETWEEN THE SEX RATIO AND PERCENTAGE MARRIED FOR NEGROES

| Data | Northern Cities | | | Southern Cities | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| Actual | −0.12 | +0.32 | +0.14 | −0.08 | +0.44 | +0.22 |
| Adjusted | −0.16 | +0.44 | +0.14 | −0.09 | +0.50 | +0.25 |

The simple regression coefficients for the actual and the adjusted data for urban Negroes in the North and the South are shown in Table 3. These figures indicate that the adjustment for differences in the marriage ratio does not change the slope for total percentages married in the North, while it is increased only slightly for the South. With the exception of the slight widening of the difference of the slopes for males and females the adjusted figures, like the partial correlation coefficients, tend to confirm the conclusions reached for the actual data.

*Conclusions.* In advanced cultures, the effect of variations in the sex ratio upon marital status is hardly perceived. Still more remote is an understanding of the operation of the sex ratio among racial and nativity groups. That marriage among Negro men is influenced less by changes in the sex ratio than among native white men is not immediately apparent. The explanation of such a phenomenon leads us into speculations about the economic and

[14] The adjusted slope for the total percentage married is +0.23; for the actual data it is +0.21.

social life of the races. The following conclusions are some of the main points derived from this study; their modifications and interpretations cannot be given for lack of space.

The percentage of urban Negro females married, for given changes in the sex ratio, varies about 13 times as much as that for males. In the case of native whites, the variation is somewhat less than twice as great for females as for males. The slopes of the curves for males are: −0.03 and −0.16, and for females +0.42 and +0.28, Negroes and native whites of native parentage respectively. This racial difference of greater variations for white males and Negro females may be due to the employment conditions of women. As the sex ratio increases, white men may have to face greater problems than Negro men in obtaining wives because of favorable employment among white women. Satisfactory employment on the other hand, being a rarity among Negro women, the sex ratio may operate more nearly as if gainful employment did not exist among them.

The total percentage married among Negroes is increased two percent in the South and one percent in the North for every ten percent increase in the sex ratio. The reason for this difference is not quite clear. In the South, female marriage, and in the North, male marriage, seem to be more sensitive to changes in the sex ratio. The slopes are, for females, +0.3 and +0.4; for males, −0.1 and −0.07, in the North and South respectively. A test of the hypothesis that in regions where the sex ratio is generally low, as in the South, female marriage will be more sensitive to changes in the sex ratio, and that of males less so, results in only a trace of supporting evidence.

Differences in the ratio of married men to married women may have some influence on the slopes for the different areas and sections; the elimination of excess married men from the cities studied tends to minimize the disparity in the operation of the sex ratio upon the marriage of males and females.